DETAILED ACTION

Notice to Applicant

1. The following is an Examiner's Amendment and Reason's for Allowance following Applicant's response filed 8/11/09 and communications with Applicant Representative Yonghong Chen, Reg. No. 56,150, dated 10/23/09 (*see* attached Interview Summary).

2. Applicant's submission filed on 8/11/09 has been entered, in which Applicant amended claims 1, 33, and 35. Of claims 1, 4–6, 9, 28, 33–40 pending as of 8/11/09, claims 1, 4–6, 9, 28, 33–40 are allowed as further amended by the Examiner's Amendment below.

Allowable Subject Matter

3. Claims 1, 4–6, 9, 28, 33–40 as amended below are allowed over the prior art as explained further below in the reasons for allowance. Furthermore, in light of the Examiner's Amendment to claim 1 below coupled with Applicant's amendments of 8/11/09, the rejection of claims 1, 4–6, 9, and 28 under 35 U.S.C. 101 dated 5/11/09 is overcome.

EXAMINER'S AMENDMENT

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Yonghong Chen, Reg. No. 56,150 on 10/23/09.

The application has been amended as follows:

In the Title

Please amend the title of the application as follows:

(Currently Amended) METHOD AND SYSTEM FOR ANALYZING RELATIONSHIPS BETWEEN PERSONS ~~RELATIONSHIP MANAGEMENT SYSTEM~~

In the Claims

Please amend claims 1, 4–5, 9, 33–37, and 39 of the application as follows:

1. (Currently Amended) A computer-implemented method for analyzing relationships between at least a first and second person ~~individuals~~ comprising the steps of:

with respect to at least one of the relationships between at least the first and second persons, obtaining relationship data from different categories and recording the relationship data from each category in a relationship data store, wherein the different categories comprise:

~~obtaining~~ organizational relationship data based upon an organization structure ~~and recording the organizational relationship data in a relationship data store~~;

~~obtaining~~ project-based relationship data based upon project-specific collaborations ~~and recording the project-based relationship data in the relationship data store~~; and

~~obtaining~~ social relationship data based upon social interactions ~~and recording the social relationship data in the relationship data store~~;

with respect to at least one of the relationships between at least the first and second persons: [[,]]

assigning a first affinity value to the at least one relationship to indicate the relative strength of the relationship in a first ~~one~~ direction, the first direction being from the first person to the second person; and

assigning a second affinity value to the at least one relationship to indicate the relative strength of the relationship in a second ~~another~~ direction, the second direction being from the second person to the first person, whereby the at least one relationship is a bidirectional relationship;

dynamically and continuously altering, by a computer, the first and second affinity values based on detected communication events including informal social interactions between at least the first and second persons~~the individuals~~;

receiving a relationship inquiry regarding at least the first and second persons;

querying the relationship data recorded in the relationship data store;

generating a response, by the computer, to the relationship inquiry based upon data gathered from the relationship data store;

graphically illustrating the response in ~~at least one of~~ a unified relationship chart and a relationship linkage chart, wherein the unified relationship chart illustrates at least one of the relationships ~~among~~ between at least the first and second persons ~~individuals~~ using data from at least two of the different ~~relationship~~ categories, and wherein the relationship linkage chart illustrates at least one relationship linkage including a chain of relationships that connect at least the first and second persons ~~two individuals~~; and displaying ~~the at least one of~~ the unified relationship chart and the relationship linkage chart in a graphical user interface of the computer, wherein the displayed ~~at least one of the~~ unified relationship chart and ~~the~~ relationship linkage chart can be interactively manipulated resulting in corresponding changes being made to the underlying relationship data store.

4. (Currently Amended) The method of claim 1, said querying step further comprising the steps of:

identifying ~~at least two individuals;~~ and determining at least one relationship linkage between said first and second persons ~~identified individuals~~.

5. (Currently Amended) The method of claim 4, said determining step further comprising the steps of: determining at least two relationship linkages between said first and second persons ~~identified individuals~~; determining a linkage strength for said each relationship linkage; and selecting a preferred one of said relationship linkages based upon said linkage strengths.

9. (Currently Amended) The method of claim 1, wherein ~~the at least one of~~ the unified relationship chart and the relationship linkage chart are~~is~~ generated by the steps of: illustrating ~~individuals~~persons as nodes and relationships as line segments connecting said nodes; and illustrating the different ~~relationship~~ categories using visually distinct line segments.

33. (Currently Amended) A computer-implemented relationship management system comprising:

a computing device that ~~means for~~ obtain~~ing~~s different categories of relationship data comprising organizational relationship data based upon an organization structure, project-based relationship data based upon project-specific collaborations, and social relationship data based upon social interactions;

a relationship data store that ~~for~~ stor~~ing~~es different categories of relationship data comprising the obtained organizational relationship data, project-specific relationship data, and social relationship data;

a relationship weight engine that, with respect to at least one relationship between at least a first and second persons, ~~for~~ assign~~ing~~s a first affinity value to [[a]] the relationship to indicate the relative strength of the relationship in a first ~~one~~ direction, the first direction being from the first person to the second person; and assign~~ing~~s a second affinity value to the relationship to indicate the relative strength of the relationship in a second ~~another~~ direction, the second direction being from the second person to the first person, whereby the at least one relationship is a bidirectional relationship;

a computing device that ~~means for~~ dynamically and continuously alters~~ing~~ the first and second affinity values based on detected communication events including informal social interactions between at least the first and second persons~~the individuals~~;

a query engine ~~configured to~~ that receives inquiries regarding at least the first and second persons, quer[[y]]ies the relationship data recorded in the relationship data store, and generates responses based on data gathered from the relationship data store; and

a relationship illustrator that ~~for~~ graphically illustrat~~ing~~es the responses in ~~at least one of~~ a unified relationship chart and a relationship linkage chart, wherein the unified relationship chart illustrates at least one of the relationships ~~among~~ between at least the first and second persons ~~individuals~~ using data from at least two of the different ~~relationship~~ categories, and wherein the relationship linkage chart illustrates at least one relationship linkage including a chain of relationships that connect at least the first and second persons ~~two individuals~~; and

a graphical user interface for displaying ~~the at least one of~~ the unified relationship chart and the relationship linkage chart, wherein the displayed ~~at least one of the~~ unified relationship chart and ~~the~~ relationship linkage chart can be interactively manipulated resulting in corresponding changes being made to the underlying relationship data store.

34. (Currently Amended) The relationship management system of claim 33, further comprising: a linkage analyzer configured to determine at least one relationship linkage between two ~~individuals~~ persons.

35. (Currently Amended) A machine-readable storage having stored thereon, a computer program having a plurality of code sections, said code sections executable by a machine for causing the machine to perform the steps of:

with respect to at least one of the relationships between at least a first and second persons, obtaining relationship data from different categories and recording the relationship data from each category in a relationship data store, wherein the different categories comprise:

~~obtaining~~ organizational relationship data based upon an organization structure ~~and recording the organizational relationship data in a relationship data store~~;

~~obtaining~~ project-based relationship data based upon project-specific collaborations ~~and recording the project-based relationship data in the relationship data store~~; and

~~obtaining~~ social relationship data based upon social interactions ~~and recording the social relationship data in the relationship data store~~;

with respect to at least one of the relationships between at least the first and second persons:[[,]]

assigning a first affinity value to the at least one relationship to indicate the relative strength of the relationship in a first ~~one~~ direction, the first direction being from the first person to the second person; and

assigning a second affinity value to the at least one relationship to indicate the relative strength of the relationship in a second ~~another~~ direction, the second direction being from the second person to the first person, whereby the at least one relationship is a bidirectional relationship;

dynamically and continuously altering the first and second affinity values based on detected communication events including informal social interactions between at least the first and second persons~~the individuals~~;

receiving a relationship inquiry regarding at least the first and second persons;

querying the relationship data recorded in the relationship data store;

generating a response to the relationship inquiry based upon data gathered from the relationship data store;

graphically illustrating the response in ~~at least one of~~ a unified relationship chart and a relationship linkage chart, wherein the unified relationship chart illustrates at least one of the relationships ~~among~~ between at least the first and second persons ~~individuals~~ using data from at least two of the different ~~relationship~~ categories, and wherein the relationship linkage chart illustrates at least one relationship linkage including a chain of relationships that connect at least the first and second persons ~~two individuals~~; and displaying ~~the at least one of~~ the unified relationship chart and the relationship linkage chart in a graphical user interface of the computer, wherein the displayed ~~at least one of the~~ unified relationship chart and ~~the~~ relationship linkage chart can be interactively manipulated resulting in corresponding changes being made to the underlying relationship data store.

36. (Currently Amended) The machine-readable storage of claim 35, said querying step further comprising the steps of:

identifying ~~at least two individuals;~~ and determining at least one relationship linkage between said first and second persons ~~identified individuals~~.

37. (Currently Amended) The machine-readable storage of claim 36, said determining step further comprising the steps of:

determining at least two relationship linkages between said first and second persons ~~identified individuals~~; determining a linkage strength for said each relationship linkage; and

selecting a preferred one of said relationship linkages based upon said linkage strengths.

39. (Currently Amended) The machine-readable storage of claim 35, wherein the ~~at least one of the~~ unified relationship chart and the relationship linkage chart ~~is~~ are generated by the steps of:

illustrating ~~individuals~~ persons as nodes and relationships as line segments connecting said nodes; and illustrating the different ~~relationship~~ categories using visually distinct line segments.

Reasons for Allowance

5. The following is an examiner's statement of reasons for allowance:

In the art of relationship analysis and management, the present invention is a method, system, and computer program for analyzing relationships between persons comprising the steps of: with respect to at least one of the relationships, obtaining and recording relationship data from different categories, wherein the different categories comprise: organizational relationship data based upon an organization structure; project-based relationship data based upon project-specific collaborations; and social relationship data based upon social interactions; with respect to at least one of the relationships between at least a first and second persons: assigning a first affinity value to indicate the relative strength of the relationship in a first direction from the first person to the second person; and assigning a second affinity value to indicate the relative strength in a second direction from the second person to the first person; dynamically and continuously altering the first and second affinity values based on detected communication events including informal social interactions between at least the first and second persons; receiving a relationship inquiry regarding at least the first and second persons; querying the recorded relationship data; generating a response to the inquiry; graphically illustrating the response in a unified relationship chart and a relationship linkage chart, wherein the unified relationship chart illustrates relationships using data from at least two different categories, and wherein the relationship linkage chart illustrates at least one relationship linkage including a chain of relationships that connect at least the first and second persons; and displaying the unified relationship chart and the relationship linkage chart which can both be interactively manipulated.

The closest prior art is **Cheng (U.S. Pat. No. 6,067,548)**. Cheng teaches a computer-implemented method for analyzing relationships between individuals comprising the steps of: obtaining organizational relationship data based upon an organization structure and recording the organizational relationship data in a relationship data store; obtaining project-based relationship data based upon project-specific collaborations and recording the project-based relationship data in a relationship data store; obtaining social relationship data based upon social interactions and recording the social relationship data in a relationship data store, dynamically and continuously altering the relationship data based on detected communication events between individuals; receiving a relationship inquiry; querying the relationship data recorded in the relationship data store; whereby said at least one relationship is a bidirectional relationship; generating a response to the relationship inquiry based upon relationship data from at least one of the multiple relationship categories; and graphically at least one of a unified relationship chart and a relationship linkage chart, wherein the unified relationship chart illustrates relationships among individuals using data from at least two different relationship categories, and wherein the relationship linkage chart illustrates at least one relationship linkage including a chain of relationships that connect two individuals.

Buckwalter et al. (U.S. Pat. No. 6,735,568) [hereinafter Buckwalter] teaches collection of relationship survey data from a user and performance of analysis thereon; with respect to at least one of the relationships, assigning a first affinity value to said at least one relationship to indicate the relative strength of the relationship in one direction and assigning a second affinity value to said at least one relationship to indicate the relative strength of the relationship in another direction, whereby the at least one relationship is a bidirectional relationship.

Ruvolo et al. (U.S. Pat. No. 7,177,880) [hereinafter Ruvolo] teaches a method displaying relationship chains between users including determining the strength of relationship from person one to person two and from person two to person one in social as well as organizational contexts. Examiner notes that this reference is disqualified as prior art under 35 U.S.C. 103(a) because it was commonly assigned to the assignee of the instant application, IBM, at the time of the invention. See attached Statement by Applicant under 35 U.S.C. 103(c)(1); MPEP 706.02(l)(2); 35 U.S.C. 103(c). Although Ruvolo is available as prior art under 102(e), Ruvolo, singularly, does not anticipate the claimed invention.

Nagy (U.S. Pat. No. 7,325,012) teaches a relationship management system including the determination of relationship strength values from one person to one or more other persons in social, organization, educational, and other contexts.

Hawks (U.S. Pub. No. 20030216942) teaches a system and method for influence network marketing including determinations of connections between nodes in the influence network and a degree of trust and friendship between individuals therefore uncovering the nature of the relationships.

Hyatt et al.(U.S. Pub. No. 2005/0065980) [hereinafter Hyatt] teaches a relationship collaboration system including the collection of data, determination, and storage of the strength of a relationship between two individuals.

Tsai and Ghoshal, *Social Capital and Value Creation: The Role of Intrafirm Networks*, The Academy of Management Journal, Vol. 41, No. 4 (Aug. 1998), pg. 464–76 [hereinafter Tsai] teaches a model of social capital breeding value creation, including a discussion and bidirectional calculation of trust within a network, shared vision, both in an organizational context, as well as social interaction in the development of relationships between individuals.

Gassenheimer et al., *The Role of Economic Value and Perceptions of Fairness in Interorganizational Relationship Retention Decisions*, Journal of the Academy of Marketing Science, Vol. 26, No. 4, 1998, pg. 322–37 [hereinafter Gassenheimer] analyzes the nature of relationships in and between organizations, incorporating the fact that relationships have both economic and social value components into relationship assessments.

However, neither Cheng, Buckwalter, Nagy, Hawks, Hyatt, Tsai, nor Gassenheimer singularly or in combination, teach or fairly suggest, with respect to at least one of the relationships between at least the first and second persons: assigning a first affinity value to the at least one relationship to indicate the relative strength of the relationship in a first direction, *the* *first direction being from the first person to the second person;* and assigning a second affinity value to the at least one relationship to indicate the relative strength of the relationship in a second direction, *the second direction being from the second person to the first person,* whereby the at least one relationship is a bidirectional relationship; dynamically and continuously altering, by a computer, *the first and second affinity values based on detected communication events including informal social interactions between at least the first and second persons;* [and] graphically illustrating the response (to a relationship inquiry) *in a unified relationship chart . . . wherein the unified relationship chart illustrates at least one of the relationships between at least the first and second persons using data* (previously obtained by invention) *from at least two of the different categories, [wherein the different categories comprise: organizational relationship data based upon an organization structure; project-based relationship data based upon project-specific collaborations; and social relationship data based upon social interactions], wherein the . . . unified relationship chart can be interactively manipulated resulting in corresponding changes being made to the underlying relationship data store.*

Nor does the remaining prior art of record remedy the deficiencies found in Cheng, Buckwalter, Nagy, Hawks, Hyatt, Tsai, and Gassenheimer. Furthermore, neither the prior art, the nature of the problem, nor knowledge of a person having ordinary skill in the art provides for any predictable or reasonable rationale to combine prior art teachings.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JUSTIN M. PATS whose telephone number is (571)270-1363. The examiner can normally be reached on Monday through Friday, 8:00am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Beth Boswell can be reached on 571-272-6737. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Justin M Pats/
Examiner, Art Unit 3623

/Beth V. Boswell/
Supervisory Patent Examiner, Art Unit 3623